

REMARKS

Claims 2, 4-18, 20-32, 34, and 35 are currently pending in the subject application and are presently under consideration. Claim 3 has been canceled and claims 2, 4, 9, 12, 13, 17, 32, and 34 have been amended in order to correct minor informalities or to further emphasize various distinguishing features. A version of all claims can be found at page 2-8 of this Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 2, 7-8, 18 Under 35 U.S.C. §103(a)

Claims 2, 7-8, 18 stand rejected under 35 U.S.C. §102(e) as being anticipated by Paatelma (US 6,463,042) in view of Boer, *et al.* (US 5, 706,428, hereinafter referred to as “Boer”). Withdrawal of this rejection is respectfully requested for at least the following reasons. Paatelma, either alone or when combined with Boer, does not teach or suggest all features of the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***. In addition, there must be a reasonable expectation of success to make the proposed combination. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). “[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. ___, 127 S. Ct. 1727 (2007) *citing In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006).

The claimed subject matter relates generally to communication in a cellular communications system in which a transmission range of a signal can be a function of a data rate of the signal as well as a function of a power level of the signal. For example, at a given fixed *power level*, a signal at a higher data rate has a smaller transmission range

than a signal at a lower data rate. (See Fig. 3). Conversely, at a given fixed *data rate*, a signal at higher power will have a larger transmission range than a signal at a lower power. (C.f. FIGS. 4a-d). Therefore, by adjusting the power levels of different portions of a data packet *that have different data rates*, a more uniform transmission range *for the entire data packet* can be achieved. (See pg. 6, ll. 18-21). In particular, independent claim 2 recites, “the power control module determines a first transmission power for the first portion and a second transmission power for the second portion such that the first portion and the second portion when transmitted at disparate data rates will ***achieve a uniform transmission range***.”

Paatelma relates to a mobile station power-saving method that transmits the header portion of a data packet at a higher power level than the data portion of the packet when the data portion can be ignored. As a result, the mobile station can enter a power-saving mode after receiving enough of the data portion to detect that portion was transmitted at a lower power level. (See Abstract; col. 4, ll. 58-65). While Paatelma discloses that the header and the data portions can be transmitted at different power levels, the reference is utterly void of any teaching or suggestion that the header and data portions are transmitted at different *data rates*. Accordingly, Paatelma does not teach or suggest “a transmitter that transmits a data packet over an RF link, *the data packet includes a first portion that is transmitted at a first data rate and a second portion that is transmitted at a second data rate that is not equal to the first data rate*.” Paatelma further fails to teach or suggest “a power control module that receives the data packet and that *determines a first transmission power for the first portion and a second transmission power for the second portion such that the first portion and the second portion when transmitted at disparate data rates will achieve a uniform transmission range*.”

At page 3 of the Office Action (dated February 29, 2008), the Examiner concedes that Paatelma does not disclose transmitting a data packet at different data rates, and therefore relies upon Boer to disclose these features. Boer generally relates to a wireless LAN that can transmit different portions of a packet at different data rates. (See Abstract). More specifically, Boer relates to a method for automatically adjusting the data rate of a packet based upon the quality of the channel. In more detail, ACKs received are employed to indicate some threshold with regard to noise or interference,

and the transmission data rate will be either increased or decreased accordingly. (See col. 7, ll. 66 – col. 8, ll. 15).

However, while Paatelma can transmit portions of a packet at different power levels and Boer can adjust data rates of the packet, neither the references nor a combination of the references teach or suggest all the claimed features. In particular, neither reference teaches a power module component that “determines a first ... and second transmission power ... *such that the first portion and the second portion when transmitted at disparate data rates will **achieve a uniform transmission range.***” Put another way, Paatelma, Boer, or a combination fails to teach or suggest a component that determines the appropriate power level at which to transmit a portion of a data packet such that even when other portions of the data packet are transmitted at different data rates, the transmission range of each portion of the packet can be substantially the same, and, thus, the transmission range of the entire packet can be more uniform.

It is readily apparent that both Paatelma and Boer are entirely void of any teaching or suggestion relating to transmission ranges for data packets. It is equally apparent that neither reference contemplates the resultant effects that adjustments to data rates or transmission power will have with regard to transmission ranges of the data packet (e.g., a higher transmission power increases the transmission range, while a higher data rate decreases the transmission range). In addition, not only is a combination of Boer with Paatelma materially deficient to teach or suggest all the claimed features, a combination of these references would result in a device that is, in fact, objectively impossible to render obvious the subject claims.

In particular, Paatelma expressly discloses, “*the Header portion of the slot is transmitted at normal power while the remainder of the slot [e.g., data portion] is transmitted at a **reduced** power level relative to the Header portion*” (see Paatelma, col. 4, ll. 63-65). Thus, Paatelma expressly teaches that a first portion of a data packet will have a higher transmission power than a second portion. In terms of transmission range, this guarantees the first portion will have a longer transmission range than the second portion if both portions have the same data rate. However, the Examiner seeks to combine this with Boer in order to produce a device that can vary not only the power but also include data portions that are transmitted at different data rates. However, Boer

explicitly recites, “it should be understood that the preamble 216 and header 218 are always transmitted at the 1 Mbps rate using DBPSK modulation. The subsequent DATA field 214, however, may be transmitted at a selected one of the four possible rates 1, 2, 5 or 8 Mbps.” (See Boer, col. 2, ll. 37-41). Therefore, Boer teaches the first portion will always have a lower (or equal) data rate relative the second portion, which means given identical transmission power the first portion will have a longer transmission range. Appreciably, the combination of Boer with Paatelma therefore cannot yield a data packet with a uniform transmission range. Specifically, Paatelma and Boer both disclose a data packet in which the power (Paatelma) and the data rate (Boer) would contribute to increasing the transmission range of the first portion relative to the second portion. Thus, while both references fail to teach a uniform transmission range, the combination would increase the non-uniformity that exists with each, forming a device in which it is even more disparate in terms of a uniform transmission range than either reference alone. Most notably, it would be impossible to achieve a uniform transmission range for the data packet as both references add to the transmission range inequity.

III. Allowable Subject Matter

Applicant kindly thanks the Examiner for acknowledging that claims 20-31 and 35 are allowable, as well as the indication that claims 4-6, and 34 would be allowable if cast in independent form. Based upon the comments *supra*, it is believed that all claims are in condition for allowance, thus, claims 4-6, 34, and 35 are not presently being recast in independent form, however, applicant reserves the right to do so at a later time.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063[TELNP200US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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